

precursors of Structures V, VI, VII, and VIII as noted in the Application, pages 3 and 4. It is Applicants' position that the scope of the invention should be determined based not upon the breadth of actual working examples provided but, rather, on the chemistries exemplified and what one skilled in the art would conclude would work based upon their understanding of the general chemical principles disclosed in the Specification, in combination with the actual working examples. Once one skilled in the art has evaluated the Specification they would have no trouble applying general principles of the disclosed chemistries, and general organic synthesis processes, to prepare the precursor compounds (Structures V, VI, VII, and VIII) which could then be used in the formation of compounds of Structures I, II, III, and IV using the method of Claim 5. Based on the above arguments, the R group substituents noted in Claim 2, including the ring systems G, are within the scope of such R groups already disclosed in granted or pending patents. The key factor to keep in mind is that although the compounds of Structures V, VI, VII, and VIII are new, their direct precursors, including compounds of Structures I, II, III, and IV, and their analogs, are not. The compounds of Structures V, VI, VII, and VIII can be easily prepared from such precursors using common and well known synthesis methods.

The general methods for preparing such compounds, and their precursors, are known to those skilled in the art based upon the various methods cited in the Application. What was not generally known in the art is that such methods could be used to prepare strained compounds such as the cyclopropanes and cyclopropenes of the instant invention. Once the inventors realized that such compounds could be prepared utilizing the cited, known methods it was only necessary to confirm with a few examples that this was the case. As a result, it is not necessary to provide the broad scope of actual working examples in order to support the scope of the claimed novel compounds. The chemicals and chemical compounds of Structures I - VIII do not differ radically in their properties. They are all either cyclopropanes or cyclopropenes with the property of the cyclopropanes being capable of chemical conversion to the corresponding cyclopropenes using known chemical processes.

Rejection under 35 USC §103(a)

Claims 2-4 are rejected under 35 USC §103(a) as being unpatentable over Seyferth et al (US Patent 3,265,745) and Robinson (US Patent 3,972,901) in that Seyferth discloses 1,1-dihalocyclopropanes and Robinson discloses gem-dihalocyclopropanes.

The disclosures of Seyferth and Robinson would not motivate one skilled in the art to prepare Applicants' cyclopropane compounds. Both Seyferth and Robinson disclose *gem*-dihalocyclopropanes. That is, compounds in which both of the key substituents are on the same carbon. These are significantly different from the 1,2-substituted cyclopropanes of Applicants. That is, compounds in which the key substituents are on adjacent carbons. There is no teaching or suggestion in either Seyferth or Robinson that would motivate one skilled in the art to prepare 1,2-disubstituted cyclopropanes. The motivation of Seyferth was to provide a novel route to 1,1-dihalocyclopropanes (see col. 1, lines 10-12). The motivation of Robinson was to produce six-membered olefinically unsaturated rings having a halogen atom on one of the ethylenic carbon atoms with useful toxicological properties or useful in the manufacture of plasticizers, flameproofing agents, etc. (See the Abstract). There is no suggestion that such compounds are useful precursors for the production of cyclopropenes with ethylene inhibition activity. Although the *gem*-dihalosubstituted compounds of Seyferth and Robinson could be considered isomers of Applicants' 1,2-substituted cyclopropanes, they are used for entirely different purposes and, in fact, cannot be converted to the cyclopropenes of Applicants' Structures I-IV using Applicants' processes (See claim 5). As a result, one skilled in the art and familiar with Seyferth and Robinson would not be motivated to prepare Applicants' compounds.

With this response, Applicants believe that the rejections have been overcome and the claims are in condition for allowance. Should the Examiner have any suggestions which may put the Application in better condition for allowance, Applicants' attorney is willing to discuss any such suggestions either by phone or at the U. S. Patent and Trademark Office.

Respectfully submitted,



Thomas D. Rogerson  
Attorney for Applicants  
Registration No. 38,602  
Telephone: 215-619-1569

Patent Department, 7th Floor  
Rohm and Haas Company  
100 Independence Mall West  
Philadelphia, PA 19106-2399  
Date: June 27, 2006